# Dwarf acts like a lady: The importance of gender roles in understanding gender switching and player behavior 


#### Abstract

As players craft and enact embodiment in digital games, the relationship between social interaction and gender (male/female) versus gender-role identity (masculinity/femininity) remains unclear. This paper examines differences in chat, avatar movement, and avatar appearance among male players who played male and female avatars. Initial analysis reveals that gender-based playstyles are distinct from gender role-based playstyles. Most importantly, men playing female avatars retain patterns typical of male players; however they depart from patterns typical of high-masculinity players. Specifically, gender-switching males tended to reject masculine behaviors in favor of flirting, using more punctuation, and deferring physical leadership. We interpret this to mean that male gender-switchers do not shed male behaviors and, instead of performing normatively feminine behaviors, work to counteract masculine behaviors - they try to act "not-masculine." These findings have implications for gameplay scholarship where offline gender is unknown and for integrating gender roles as key to studying gender in games.


## Keywords

gender; video games; virtual worlds; identity

## Introduction and Background

An important aspect of online social interaction is the ability to craft a presence to navigate a digital space. In online games and digital worlds, that self is often represented by a customized avatar. That persona could represent one aspect of identity, be a faithful reproduction, or be an alternate self (Messinger, et al. 2008). However, a growing body of work has found that users' activities online are not so easily divorced from offline identities, especially gender (Herring, 1994, 1, 5, 9)

In some MMOs, a substantial proportion of players - especially men - report using avatars of the opposite gender (Yee \& Ducheneaut, 2011). A study of multiplayer online games found that $70 \%$ of women and $54 \%$ of men have played a character of the opposite gender. However, the manifestation of such "gender switching" in social interaction are unclear. Although research suggests that play alternately-gendered avatars as a kind of identity play (Turkle, 1995), this may not always be the case. Yee's work (2008) on the topic suggests that many men in World of Warcraft (WoW) in particular play female avatars without the intention to persuade others they identify as female offline.

This paper analyzes the chat, movement, and avatar appearance of players in the massively multiplayer online game (MMO) WoW to examine how player behavior differs when using an avatar of the opposite gender than reported in an online survey.

## Theoretical Framework and Literature Review

In the full-length paper, we draw on feminist theories of self, with a focus on the interplay between masculine and feminine gender roles, and how they relate to gender identity. Feminist discussions of gender roles generally refer to the set of social and individual expectations or rules arising from society, and are understood as critical to the establishment of the 'acceptable' and 'unacceptable' behaviors for men as men and women as women. Butler (1990), Benhabib (1987), and others argue that the self emerges in interaction, and can be understood as a narrative construction of identity that can incorporate a multiplicity of gender roles and identities.

For gender role theorists such as Goffman (1954), roles are exclusively social, and treated as "staged presentations" that actors learn through socialization, imitation, and experience. Eagly (1987) proposes that men and women behave differently according to gender-segregated social roles.

This view would suggest that avatar gender in an MMO may serve as a contextual stimulus that activates gender roles associated with that gender. Research has found that avatar appearance can influence individual behavior and attitudes (Yee \& Bailenson, 2007; Merola \& Peña, 2010; Messinger et al., 2008). Lehdonvirta et al. (2012) found men are more likely to ask for help when assigned a female avatar, suggesting that avatar gender may influence behavior. However, a study of gender swapping in the MMO EverQuest II (Huh \& Williams, 2010) found male players do not behave differently when switching avatar gender as measured by combat instances, quests completed, encounters fighting other players, or number of chat messages sent. Feminist theories of gender and social role theory suggest that such patterns may be due to gender roles, rather than strictly gender category.

We hypothesize that men playing female avatars use the same styles of chat, movement, and appearance as men playing male avatars. In contrast, we hypothesize that those who gender switch use play styles associated with lower levels of masculinity, as identified by the Bem Sex Role Inventory.

## Methods and Results

To examine whether men who play female avatars tend to adopt less masculine styles of play, we examined the chat, movement, and appearance of players in a custom-built mini-game in the MMO WoW. This project is part of a larger study of social interaction in virtual worlds (explained fully in the complete paper). The project asked players to fill out an online survey, then scheduled them into groups of 3-5 people to play a two-hour game. Chat, movement, and avatar appearance were logged automatically during play, and data were content analyzed into categories such as clustering behavior, gestures use, discourse types (e.g., directives, flirtation), and chat characteristics (e.g., punctuation, emoticons). The survey asked participats their gender, "I consider myself: [male, female, other]," and used the Bem Sex Role Inventory (BSRI, 1974) to assess levels of masculinity and femininity. We contrast BSRI scores with player and avatar gender to explore how gender identity relates to behavior in WoW. Sample size was 375 participants. Because our sample only had seven women who played male avatars, we do not examine women who gender switch in this paper, but we do examine women in our assessments of masculine play styles.

## Results and Conclusions

Initial findings reveal that player gender correlated strongly (.702, p < .0001) with avatar gender, and men were more likely ( $35 \%$ ) to switch genders than women ( $10 \%$ ). Levels of femininity or masculinity however, did not correlate with avatar gender, nor with player gender. That is, men did not consistently demonstrate higher levels of masculinity than women.

We examined the play style of male players to identify characteristics of play that differed most strongly. Logistic regressions (removing avatar gender) showed that men tended to jump more, use fewer appreciation statements such as "nice job!," select avatars with less attractive faces, and spread out less during play. In contrast, high masculinity (BSRI) corresponded with different behaviors: less use of punctuation, fewer smile gestures, less flirtation, more combat events, greater use of player names, and more action directives. These differences suggest that male play styles are distinct from masculine play styles.

We also examined whether or not men who used female avatars tended to match either male or masculine play styles. We found that men who switched gender tended to use the same play styles as men who did not with one exception: men playing female avatars tended to select avatars with more attractive faces than those who were playing male avatars. However, when looking at gender roles, we found that men who gender switched tended to exhibit some of the play styles associated with lower levels of masculinity: gender switchers were more flirtatious, used more punctuation, and tended not to lead the group into or out of rooms/buildings. The full paper presents and discusses and expands on these findings in-depth.

These results suggest that although play style as defined by what male players typically do does not change when men play female avatars, when we examine patterns in play by gender roles, we see distinctions between gender switchers and non-gender switchers. That is, the behaviors associated with masculine, but not necessarily male, players changed when men played female avatars. We conclude that distinguishing play style by player gender is significantly different than distinguishing them by gender role. In addition, although styles associated with men may not change when player gender switch, styles associated with masculinity do change.

We interpret these findings to mean that male gender-switchers do not shed their male behaviors and instead of performing normatively feminine behaviors, they work to counteract masculine behaviors they try to act "not masculine." These findings have implications for the study of gameplay where offline gender identification is not known, and for integrating gender roles as key to the study of gender in games.

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## References

Bem, S.L. (1974). The Sex Role Inventory. Journal of Personality and Social Psychology, 42, 122-62.
Butler, J. (1990). Gender trouble: Feminism and the subversion of identity. New York: Routledge.
Herring, S. C. (1994). Politeness in computer culture: Why women thank and men flame. In: Cultural performances: Proceedings of the Third Berkeley Women and Language Conference (pp. 278-294). Berkeley Women and Language Group.
Huh, S \& Williams, D. (2010). Dude looks like a lady: Gender swapping in an online game. In W.S.Bainbridge (Ed.), Online worlds: Convergence of the real and the virtual. Human-Computer Interaction Series (pp. 161-174)

Hussain, Z. \& Griffiths, M.D. (2008). Gender swapping and socializing in cyberspace: An exploratory study. Cyberpsychology \& Behavior, 11, 1, 47-53.
Lehdonvirta, M., Nagashima, Y., Lehdonvirta, V., \& Baba, A. (2012). The stoic male: How avatar gender affects help-seeking behaviour in an online game. Games and Culture, 7(1).

Markus, H \& E Wurf. (1987). The dynamic self-concept: A social psychological perspective. Annual Review of Psychology, 38, 299-337.
Merola, N. \& Peña, J. (2010). The effects of avatar appearance in virtual worlds. The Journal of Virtual Worlds, 2(5).

Messinger, P.R, Ge, X., Stroulia, E., Lyons, K., Smirnov, K, \& Bone, M. (2008). On the relationship between my avatar and myself. The Journal of Virtual Worlds, 1(2), N.P.

Peña, J., Hancock, J. T., \& Merola, N.A. (2009). The priming effects of avatars in virtual settings. Communication Research, 36, 838-856.
Turkle, S. (1995). Life on the Screen: Identity in the age of the internet. New York: Simon \& Schuster.
Yee, N. \& Bailenson, J.N. (2007). The Proteus effect: The effect of transformed self-representation on behavior. Human Communication Research, 33, 271-290.
Yee, N. \& Ducheneaut, N. (2011). "Gender bending," Retrieved from: http://blogs.parc.com/playon/2010/07/23/gender-bending/

Yee, N. (2008). Maps of digital desires: Exploring the topography of gender and play in online games. In Kafai, Y., Heeter, C., Denner, J., \& Sun, J. (Eds.), Beyond barbie and mortal kombat: New perspectives on gender and gaming (pp. 83-96). Cambridge, MA: MIT Press.

